



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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September 30, 2009

IN REPLY PLEASE

REFER TO FILE: PR-0
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TO: Each Supervisor

FROM: Gail Farber *Gail Farber*
Director of Public Works

BOARD MOTION OF SEPTEMBER 8, 2009, AGENDA ITEM 61-A AUGUST/SEPTEMBER 2009 WILDFIRES DISASTER RECOVERY REPORT – SEPTEMBER 30, 2009

The August/September series of wildfires resulted in significant damage to County roads and infrastructure in the Angeles National Forest. On September 8, 2009, your Board made a finding that an emergency situation existed that required immediate measures be undertaken to repair the damage, restore access to homes and businesses, and prevent and reduce potential flooding and damage due to mudflows. Your Board authorized the Director of Public Works to negotiate and execute emergency construction contracts, amend existing service contracts, and enter into new short-term contracts. In accordance with the Public Contract Code, Government Code, and County Code, your Board must review the necessity of these emergency contracting procedures every 14 days. As part of this requirement, attached is the second Disaster Recovery Report.

Estimated damage to Public Works' infrastructure to date is now approximately \$9.8 million. Vital upgrades to roadway culverts and debris basins to protect the public from anticipated storm and debris flows are now estimated to cost another \$9.8 million for a total damage assessment of almost \$20 million. We are aggressively pursuing reimbursement through the California Emergency Management Agency and the Federal Highway Administration.

Most of the burn area assessments have been completed. Tree removal contractors are already at work. An estimated 1,200 trees will be removed. Contracts to replace over 37,000 linear feet of metal beam guardrail have been solicited, and over 47 miles of pavement striping and markers have been restored.

Contracts for culvert upgrades and cleanouts will be sought as soon as inspection of the 430 culvert locations is completed. Sediment removal at nine fire-impacted debris basins is currently underway in preparation for winter storms.

Angeles Forest Highway and Big Tujunga Canyon Road were reopened under construction zone conditions last Friday, September 25, to local area residents, but through traffic is prohibited. The Angeles National Forest remains closed to the public.

Public Works is also continuing to develop public outreach plans as part of the Coordinated Agency Recovery Effort (CARE) public outreach and education campaign, approved by your Board on September 15, 2009. Office space and equipment have been provided for the CARE team in the Public Works' Headquarters building. US Forest Service (USFS) staff is utilizing the space on a daily basis. The CARE team has grown to include Public Works, USFS, National Incident Management Organization, U.S. Geological Survey (USGS), Natural Resources Conservation Service, and Caltrans. As Public Works transitions from assessment and recovery efforts to emergency preparedness activities, the CARE team will be coordinating its efforts with the County of Los Angeles Fire and Sheriff's Departments and the Office of Emergency Management.

This past week, the CARE team was very busy. On Friday, September 25, 2009, Supervisor Antonovich and the CARE team hosted a meeting for elected officials and staff from 23 communities bordering the Angeles National Forest. The meeting was also attended by other County, State, and Federal agencies. About 160 representatives attended and received initial damage assessments from the Burn Area Emergency Response (BAER) team, Public Works, and the USGS.

The CARE team has also begun developing a speaker's bureau and multi-agency talking points in preparation for community meetings to discuss the fires' impact and the threat of winter mudslides. On behalf of Supervisorial District 5, the CARE team is coordinating a series of city/town council presentations to 19 affected communities. Three meetings have already been held in La Canada-Flintridge and Glendale.

The CARE team is also scripting public service announcements for broadcast on city cable TV channels, including the Danger Debris Flow video. These projects should be completed by October 14, 2009, and will be sent to about 27 communities for broadcast on local cable TV channels.

The CARE team is also working to design a new website featuring a variety of links to fire recovery and storm preparation information. Twitter and YouTube will also be

Each Supervisor
September 30, 2009
Page 3

utilized in this outreach effort. The CARE team is compiling a network of city/community newsletters and newspapers for dissemination of updates and alerts on road closures and mudslide education. A toll free number (1-800-214-4020) has been set up to provide technical assistance for residents on constructing mudslide diversions. Public Works' engineers have already visited about 200 properties in burn-affected communities to provide mudslide protection advice to home owners.

It is recommended that your Board determine: (1) there is still a need to continue the emergency action and (2) the Executive Office continue to place this item on the agenda for Board review every 14 days in accordance with Section 22050 of the Public Contract Code, the California Emergency Services Act (Government Code, Section 8550 et seq.), and Section 2.68.120 of the Los Angeles County Code.

BS:al

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Attach.

cc: Chief Administrative Office (Lari Sheehan)
Executive Office

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
SEPTEMBER 30, 2009**

Total Damage Estimates

Transportation		\$ 8,230,000
Tree Removal	885,000	
Guardrail Repair and Replacement	2,730,000	
Sign Replacement	161,000	
Striping Restoration	46,000	
Road Shoulder and Culvert Debris Removal	4,348,000	
Miscellaneous (Catch Basin, Headwall Repairs)	60,000	
Public Works Buildings		1,139,000
Assistant Dam Operator House (Big Tujunga Dam)	320,000	
Office and Crew Quarters at RD557A sub-yard	819,000	
Communication Systems		35,000
San Gabriel Dam	5,000	
Pacoima Dam	30,000	
Flood Control		425,000
Repair Electrical System at Morris Dam	100,000	
Repair Electrical System at Big Tujunga Dam	250,000	
Repair/Replace Rain Gages and Repeaters	75,000	
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Total		\$ 9,829,000

**Roadway Culvert Upgrades and Debris Basin Cleanouts/Modifications
Necessitated by the Fires**

Transportation		\$ 2,709,000
Road Culvert Inlet Upgrades	2,709,000	
Flood Control		7,080,000
Debris Basin Cleanouts	1,800,000	
Debris Basin Modification and Expansion	5,000,000	
Erosion Barriers	280,000	
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Total		\$ 9,789,000
 Grand Total		 \$ 19,618,000

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
SEPTEMBER 30, 2009**

TRANSPORTATION

Palos Verdes Fire

No impacts reported.

Morris Fire

Glendora Mountain Road and East Fork Road

Closed on August 25, 2009. No scheduled date to reopen. Wooden covers for rural catch basins and standpipes have been damaged. Road Maintenance Division (RMD) estimates the cost to replace the catch basin covers is \$10,000. An estimate of the cost to replace damaged standpipes is being prepared. A damaged rock headwall at MM 8.02 of Glendora Mountain Road must also be repaired at an estimated cost of \$50,000. Operational Services Division (OSD) reported that 20 signs related to flood control facilities have been damaged/destroyed. OSD estimates the cost to replace the signs at \$2,500. This work will be performed once the area is declared safe to enter. RMD is continuing to field review the area for additional damage.

Station Fire

Angeles Forest Highway – Mt. Emma Road/Angeles Crest Highway

Closed on August 26, 2009. The road was reopened to local residents and emergency personnel only on September 25, 2009. Through traffic is prohibited, with access allowed only from the north or via Big Tujunga Canyon Road through Sunland. Angeles Forest Highway is barricaded at Angeles Crest Highway. This road has a reported Average Daily Traffic (ADT) volume of 4,544 vehicles. It is a commuter route primarily used by residents of the Antelope Valley.

Design Division (DES) estimates the cost of guardrail repairs at \$1,050,000. OSD reports that approximately 400 roadway signs have been destroyed and the cost to replace the signs is estimated to be \$80,000. OSD completed the sign replacement work on September 24, 2009. OSD has also restored the striping and raised pavement markers at an estimated cost of \$20,000. RMD is removing approximately 425 burned trees and is scheduled to complete the work by October 4, 2009. RMD has reviewed 172 existing culverts and has determined 49 locations that need trash rack or standpipe to mitigate the effects of mud/debris flow during storms. Five locations on Angeles Forest Hwy will be done by force account and the rest will be by contract. Contract sketches are currently being prepared and are scheduled to be completed by September 28, 2009. It will take approximately 4-6 weeks for the emergency contract to be awarded. Pending United States Forest Service and other agency approvals/permits, it is anticipated that construction will be completed by January 2010.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
SEPTEMBER 30, 2009**

Plans for replacement of the guardrail were completed on September 11, 2009. The construction contract was awarded on September 28, 2009. Construction is estimated to take six weeks and be completed by November 16, 2009.

Design Division is evaluating whether a standard concrete barrier rail can be installed to replace the fire-damaged bridge railings on the Mill Creek bridge at Angeles Forest Highway as a separate project. In the interim, DES requested MD-5 to install temporary K-rails and crash cushions at this location.

Public Works will coordinate with Caltrans to develop a plan and schedule for reopening Angeles Forest Highway in conjunction with Angeles Crest Highway. Caltrans reports that Angeles Crest Highway will remain closed for at least the next several weeks.

Big Tujunga Canyon Road – L.A. City Boundary/Angeles Forest Highway

Closed on August 28, 2009. The road was reopened to local residents and emergency personnel only on September 25, 2009. Through traffic is prohibited. This road has a reported ADT of 825 vehicles.

DES estimates the cost of guardrail repairs at \$560,000. OSD completed the replacement of 200 roadway signs effective September 24, 2009, at an estimated cost of \$40,000. OSD has also restored the striping and raised pavement markers at an estimated cost of \$10,000. RMD is removing approximately 170 burned trees and is scheduled to complete the work by October 4, 2009. RMD has reviewed 60 existing culverts and has determined 36 locations that need trash rack or standpipe to mitigate the effects of mud/debris flow during storms. Contract sketches are currently being prepared and are scheduled to be completed by September 28, 2009. It will take approximately 4-6 weeks for the emergency contract to be awarded. Pending United States Forest Service and other agency approvals/permits, it is anticipated that construction will be completed by January 2010.

Plans for replacement of the guardrail were completed on September 16, 2009. The construction contract will be awarded by September 28, 2009. Construction is estimated to take 4 weeks and be completed by November 5, 2009.

Upper Big Tujunga Canyon Road – Angeles Forest Highway/Angeles Crest Highway

Closed on August 28, 2009. The road was reopened to local residents and emergency personnel only on September 25, 2009. Through traffic is prohibited. Access is available via Angeles Forest Highway, with a hard closure at Angeles Crest Highway. This road has a reported ADT of 176 vehicles.

DES estimates the cost of guardrail repairs at \$1,120,000. OSD has replaced the approximately 100 roadway signs effective September 24, 2009, at an estimated cost of \$21,000. OSD completed the sign replacement work September 24, 2009. OSD has

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
SEPTEMBER 30, 2009**

also restored the striping and raised pavement markers at an estimated cost of \$9,000. RMD is working to remove approximately 255 burned trees and is scheduled to have it completed by October 4, 2009. RMD has reviewed 84 existing culverts and have determined 36 locations that need trash rack or standpipe to mitigate the effects of mud/debris flow during storms. Contract sketches are currently being prepared and are scheduled to be completed by September 28, 2009. It will take approximately 4-6 weeks for the emergency contract to be awarded. Pending United States Forest Service and other agency approvals/permits, it is anticipated that construction will be completed by January 2010.

Plans for replacement of the guardrail were completed September 21, 2009. The construction contract will be awarded by October 1, 2009. Construction is estimated to take 6 weeks and be completed by November 24, 2009.

Aliso Canyon Road – Angeles Forest Highway/Ave Y-8

Closed on August 30, 2009. Reopened on September 3, 2009. DES and RMD estimate that guardrail repairs at bridge approaches for Bridge No. 3797 will cost \$49,000. This work will be included in the guardrail contract for Angeles Forest Highway. OSD has replaced the approximately 20 roadway signs that were destroyed by the fires at an estimated cost of \$5,000. OSD has also restored the striping and raised pavement markers at an estimated cost of \$3,000.

Mt. Emma Road – 47th Street East/Angeles Forest Highway

Closed on August 30, 2009. Reopened on September 3, 2009.

Little Tujunga Canyon Road – Gold Creek Road/Sand Canyon Road

Closed on August 29, 2009. Reopened on September 6, 2009. RMD conducted a detailed survey of the guardrails and found no fire-damaged guardrails. Upon field review, OSD reports no damage to the roadway signs and striping. RMD found no trees or roadway drainage structures impacted by the fire.

Sand Canyon Road

Closed on August 29, 2009. Reopened on September 9, 2009. OSD reports no damage to the roadway signs and striping. RMD found no trees or roadway drainage structures impacted by the fire.

Mt. Wilson Red Box Road

Closed on August 29, 2009. The road was reopened by emergency personnel on September 28, 2009. DES conducted a detailed survey of the guardrails and found no fire-damaged guardrails. OSD reports no damage to the roadway signs. OSD has restored the striping at an estimated cost of \$4,000. RMD is working to remove fire-impacted trees (38) and expects to have it completed by October 4, 2009. RMD has

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
SEPTEMBER 30, 2009**

assessed roadway drainage structures and recommended trash rack/standpipes at 8 locations. This work will be done by County forces.

Other

Needed drainage inlet upgrades, such as trash racks and stand pipes, have been identified by RMD along Angeles Forest Highway, Big Tujunga Canyon Road, Upper Big Tujunga Canyon Road, and Mt. Wilson Red Box Road to protect these roads from storm flows. The estimate to install these improvements is \$1,935,000 of which \$151,000 will be done by force account and \$1,784,000 by contract. Contract sketches are currently being prepared and are scheduled to be completed by September 28, 2009. It will take approximately 4-6 weeks for the emergency contract to be awarded. Pending United States Forest Service and other agency approvals/permits, it is anticipated that construction will be completed by January 2010.

The removal of about 1,200 trees along Angeles Forest Highway, Big Tujunga Canyon Road, Upper Big Tujunga Canyon Road, Mt. Wilson Red Box Road, and Aliso Canyon Road, is estimated to cost \$835,000. This work is being done by force account and emergency contract. Approximately 1,170 burned trees have been removed by both as-needed contractors and County forces as of September 28, 2009. The tree removals are expected to be completed by October 4, 2009. RMD estimates approximately 1,000 trees/shrubs need to be removed within the culvert inlet areas that will be done by force account at an estimated cost of \$275,000. This work is scheduled to be completed by November 16, 2009.

RMD estimates approximately 340 culvert markers were burned and will need to be replaced at an estimated cost of \$12,000. Approximately 130 have been replaced to date at an estimated cost of \$4,800.

The total number of raised reflective markers installed to date is 4,300.

PUBLIC WORKS BUILDING DAMAGE

Palos Verdes Fire

No impacts reported.

Morris Fire

No impacts reported.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
SEPTEMBER 30, 2009**

Station Fire

The Assistant Dam Operator's residence at Big Tujunga Dam was destroyed in the Station Fire. FMD estimates the demolition and cost to rebuild will be \$320,000.

The office and crew quarters (1800 sf) at the RD557A yard at Mill Creek were destroyed in the Station Fire. AED estimates the demolition and cost to rebuild will be \$819,000.

OTHER COUNTY DEPARTMENTS BUILDING DAMAGE

No impacts reported.

PRIVATE PROPERTY DAMAGE

Palos Verdes Fire

Three structures in the City of Rolling Hills suffered eave/roof damage. Building and Safety (B&S) is working with the city to assist residents with erosion control advice and with building permits for any necessary fire damage repairs.

Morris Fire

No impacts reported.

Station Fire

As of September 10, B&S staff has inspected 67 properties with destroyed or damaged structures as reflected in the following table:

OCCUPANCY	DESTROYED (100%)	DAMAGED (<100%)
Dwellings	32	4
Cabins	26	1
Detached Garage	23	3
Accessory (RES)	19	8
Commercial	1	2
Other	8	2
Total	109	20

The number of affected properties/structures may grow as new locations are discovered by the Fire Department and/or reported by the public. Damage estimate is not available at this time.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
SEPTEMBER 30, 2009**

COMMUNICATIONS SYSTEMS

Palos Verdes Fire

No impacts reported.

Morris Fire

A communication line at the San Gabriel Dam facility was damaged as a result of the Morris Fire. ITD estimates the cost to repair the line is \$5,000.

Station Fire

Communication lines and poles at the Big Tujunga Dam facility were damaged. ITD will work with OSD to determine reconstruction options (e.g. poles versus underground) and provide estimated costs. ITD is unaware of communication damage to Pacoima Dam as a result of the Station Fire.

The Road Weather Information System (RWIS) at RD557A (Mill Creek) is not operational. ISD is assessing the cost to repair the system.

ITD determined there is no communication damage to Cogswell Dam and Mt. Disappointment. Both sites are on generator power.

FLOOD CONTROL SYSTEM

Palos Verde Fire

No impacts reported.

Morris Fire

No impacts reported to flood control operation. Minor damages were sustained to phone line, power lines, and signage in the vicinity of Morris Dam. The cost to repair this damage is approximately \$100,000. Electricity has been restored to Morris Dam.

Post Fire Mudflow impacts to San Gabriel, Morris, and Cogswell Dams have been evaluated and recommendations were made for measures to prevent damage to facilities, maintain reliable dam operations, and provide dependable access on site of these dams.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
SEPTEMBER 30, 2009**

Station Fire

Post Fire Mudflow impacts to Big Tujunga Dam have been evaluated and recommendations were made for measures to prevent damage to facilities, maintain reliable dam operations, and provide dependable access on site.

Eight debris basins in the burn area, namely Dunsmuir, Eagle, Gould, Gould Upper, Mullaly, Pinelawn, Rowley, and Shields will be cleaned out prior to October 15, 2009. This work is necessary to provide additional capacity for the anticipated increased volume of debris in the coming storm season resulting from the fire. The cost of the debris removal is estimated to be \$1.8 million.

Water Resources Division (WRD) is currently evaluating the need to increase storage capacity at seven debris basins within the fire area namely Big Briar, Mullaly, Snover, Pickens, Starfall, Pinelawn, and Rowley. Scope of work and corresponding cost estimates are being developed. Total cost is estimated in excess of \$5 million. In addition, WRD is still investigating and evaluating locations that may require rail and timber structures or similar type of structures to minimize property damage.

Public Works Engineering Advice Teams have provided advice to approximately 275 residences within the City of La Canada-Flintridge and the unincorporated County areas of La Crescenta, Big Tujunga, and Acton. The City of Glendale has requested assistance with providing Engineering Advice to their residents. Reconnaissance of impacted properties within the City were investigated on Monday, September 28, and Tuesday, September 29. Engineering Advice Teams will be deployed thereafter.

OSD completed their inspection of the power lines at Big Tujunga Dam and an initial recovery scoping meeting with FMD, WRD, and OSD occurred on September 23, 2009. Electrical upgrades may likely be constructed with the recovery process. WRD will be providing project updates with schedules and estimates. A contractor will be needed to perform the work to bring power to the dam and outlying facilities.

Thirteen rain gages and one repeater were damaged or destroyed at Mt. Gleason. The estimated cost to repair and/or replace the equipment is \$75,000.

WATERWORKS SYSTEMS

No impacts reported.

COUNTY SEWER SYSTEMS

No impacts reported.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
SEPTEMBER 30, 2009**

COUNTY AIRPORTS

No impacts reported.

**County of Los Angeles Department of Public Works
AUGUST/SEPTEMBER 2009 WILDFIRES EVENTS
EMERGENCY CONSTRUCTION CONTRACTS**

ID	PROJECT NAME	DESCRIPTION/SCOPE OF WORK	ESTIMATED CONTRACT COST	CONSTRUCTION	
				ESTIMATED START DATE	ESTIMATED FINISH DATE
1	Station Fire - Angeles Forest Highway Guard Rail Replacement	Guard Rail Restoration	\$ 600,000	October 2009	November 2009
2	Station Fire - Big Tujunga Canyon Road Guard Rail Replacement	Guard Rail Restoration	\$ 400,000	October 2009	November 2009
3	Station Fire - Upper Big Tujunga Canyon Road Guard Rail Replacement	Guard Rail Restoration	\$ 800,000	October 2009	November 2009
4	Culvert Trash Racks and Standpipes	Reconstruct damaged trash racks and standpipes in culvert inlet areas within MD5	\$ 1,784,000	November 2009	January 2010
5	Tree Removal	Remove burned/dead trees within County roadways in MD5.	\$ 550,000	Started September 9, 2009	October 2009
6	Debris Basin Expansions	Provide additional capacity at the Big Briar, Mullaly, Snover, Pickens, Starfall, Pinelawn, and Rowley debris basins.	TBD	TBD	TBD
7	City of La Canada Flintridge Erosion Barriers	Install concrete k-rail and/or other devices in the City of La Canada Flintridge public streets for debris/mud flow protection.	\$ 200,000	October 2009	November 2009
8	Mill Creek Office/Crew Room Reconstruction	Reconstruction of 1800 square foot office and crew quarters at the RD557A yard at Mill Creek	TBD	TBD	TBD
TOTAL AUGUST/SEPTEMBER 2009 WILDFIRES EMERGENCY CONSTRUCTION CONTRACTS			\$ 4,334,000		